

IN THE CLAIMS

Cancel Claims 12, 13, 26, and 27.

**CLEAN VERSION OF THE PENDING CLAIMS Under 37 C.F.R. § 1.121(c) (3):**

Claims 1, 3-5, 7-11, 14-15, and 17-25, and 28-49, now pending, are submitted below in accordance with 37 C.F.R. § 1.121(c)(3), which presents a clean version of the entire set of pending claims in this single amendment paper.

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1. (Fourth Times Amended) A computer-readable medium having a plurality of executable instructions at least a subset of which, when executed, implement a method comprising:

D/ upon receipt of an indication from a user having access to a computer network to access a resource on the computer network, checking a first memory, without performing a file open procedure upon a file in which are stored any access permissions of users for access to the resource, to determine:

if:

the requested resource is altered; or

a representation of the user has been removed from the first memory; or

any of the access permissions of the user for access to the requested resource are altered:

then removing any access permissions from the first memory  
allowing access to the requested resource by the user;  
else, if:

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the first memory indicates that the user has previously accessed the  
resource:

then providing the user with access to the requested resource.

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2. (Cancelled)

3. (Unamended) The computer-readable medium of claim 1 wherein the user is  
represented in the first memory by a token.

4. (Unamended) The computer-readable medium of claim 3 wherein the token also  
represents a plurality of other users.

5. (Unamended) The computer-readable medium of claim 3 wherein the token also  
represents anonymous users.

6. (Cancelled)

7. (Unamended) The computer-readable medium of claim 1 wherein the resource is  
a file.

8. (Unamended) The computer-readable medium of claim 1 wherein the resource is a volume of files.

9. (Unamended) The computer-readable medium of claim 1 wherein the resource is a memory device.

10. (Once Amended) The computer-readable medium of claim 29 wherein storing the information in the first memory comprises overwriting other information associated with the resource in the first memory.

11. (Unamended) The computer-readable medium of claim 10 wherein storing the information in the first memory comprises writing a token for the user in the first memory over another token for another user that had last previous access to the resource.

12. (Cancelled)

13. (Cancelled)

14. (Unamended) The computer-readable medium of claim 1 wherein the request from the user indicates an operation to perform with respect to the resource, and further

comprising:

    checking the first memory to determine if the user may perform the operation with respect to the resource;

    providing the user with access to the resource to perform the operation if the first memory indicates that the user may perform the operation with respect to the resource;

    checking a second memory to determine if the user may perform the operation with respect to the resource if the first memory does not indicate that the user may perform the operation with respect to the resource;

    providing the user with access to the resource if the second memory indicates that the user may perform the operation with respect to the resource; and

    storing information in the first memory indicating that the user may perform the operation with respect to the resource if, after checking the second memory, the second memory indicates that the user may perform the operation with respect to the resource.

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D<sup>2</sup> 15. (Thrice Amended) A method for providing access to a requested resource on a computer network, the method comprising:

    checking a first memory, without performing a file open procedure upon a file in which are stored any access permissions of users for access to the requested resource, to determine:

    if:

        the requested resource is altered; or

        a representation of a user has been removed from the first memory, where

the user has access to the computer network and is requesting access to the requested resource; or

any of the access permissions of the user for access to the requested resource are altered:

then removing from the first memory any access permissions of the  
user that allow access to the requested resource by the user;

else, if:

the first memory indicates that the user has previously accessed the resource:

then providing the user with access to the requested resource.

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16. (Cancelled)

17. (Unamended) The method of claim 15 wherein the user is represented in the first memory as a token.

18. (Unamended) The method of claim 17 wherein the token also represents a plurality of other users.

19. (Unamended) The method of claim 17 wherein the token represents anonymous users.

20. (Unamended) The method of claim 17 further comprising:  
authorizing the user by checking a password provided by the user;  
associating the token with the user after authorizing the user; and  
using the token to check the first memory.
21. (Once Amended) The method of claim 15 wherein the requested resource is a file.
22. (Once Amended) The method of claim 15 wherein the requested resource is a volume of files.
23. (Once Amended) The method of claim 15 wherein the requested resource is a memory device.
24. (Once Amended) The method of claim 30 wherein storing the information in the first memory comprises overwriting other information associated with the requested resource in the first memory.
25. (Once Amended) The method of claim 24 wherein storing the information in the first memory comprises writing a token for the user in the first memory over another token

for another user that had last previous access to the requested resource.

26. (Cancelled)

27. (Cancelled)

28. (Once Amended) The method of claim 15 wherein the request from the user indicates an operation to perform with respect to the requested resource, and further comprising:

checking the first memory to determine if the user may perform the operation with respect to the requested resource;

providing the user with access to the requested resource to perform the operation if the first memory indicates that the user may perform the operation with respect to the requested resource;

checking a second memory to determine if the user may perform the operation with respect to the requested resource if the first memory does not indicate that the user may perform the operation with respect to the requested resource;

providing the user with access to the requested resource if the second memory indicates that the user may perform the operation with respect to the requested resource; and

storing information in the first memory indicating that the user may perform the operation with respect to the requested resource if, after checking the second memory, the second memory indicates that the user may perform the operation with respect to the requested resource.

29. (Once Amended) A computer-readable medium according to claim 1, further comprising:

    checking a second memory to determine if the user may access the resource if the first memory does not indicate that the user has previously accessed the resource;

    providing the user with access to the resource if the second memory indicates that the user may access the resource; and

    storing information in the first memory indicating that the user may access the resource if, after checking the second memory, the second memory indicates that the user may access the resource.

30. (Unamended) A method according to claim 15, further comprising:

    checking a second memory to determine if the user may access the requested resource if the first memory does not indicate that the user has previously accessed the requested resource;

    providing the user with access to the requested resource if the second memory so indicates;

    and

    storing information in the first memory indicating that the user may access the requested resource, if the second memory so indicates.

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31. (Once Amended) A method for controlling access to a requested resource on a computer network by a requesting user having access to the computer network, the method comprising:

    checking a memory, without performing a file open procedure upon a file in which are stored any access permissions of users for access to the requested resource, to determine:

    if:

        the requested resource is altered; or

        a representation of the user has been removed from the memory; or

        any access permissions of the user for access to the requested resource are altered:

            then removing from the memory any access permissions of the user for access to the requested resource;

    else, if:

        the memory indicates that the requesting user having access to the computer network had previously accessed the requested resource:

    then providing the requesting user with access to the requested resource.

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32. (Once Amended) A method according to claim 31, further comprising:  
    performing a file open procedure upon the file in which are stored any access permissions of users for access to the requested resource to determine if the requesting user may access the

requested resource if the memory does not indicate that the requesting user has previously accessed the requested resource; and

providing the requesting user with access to the requested resource if the requested resource indicates that the requesting user may access the requested resource.

33. (Unchanged) A method according to claim 32, further comprising:

storing information in the memory indicating that the user has previously accessed the requested resource.

34. (Unchanged) A method according to claim 31, further comprising, prior to checking the memory, performing a preliminary memory check to determine if the requesting user has previously accessed the computer network.

35. (Once Amended) A machine-readable program storage device embodying instructions executable by a computer to perform a method for providing access to a plurality of resources to a plurality of requesting users, wherein access to each said resource is controlled by a

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network server having a network memory, the method comprising:

receiving at the network server a resource request to access a requested resource of said plurality of resources from one said requesting user, wherein:

the network memory has stored therein which of said plurality of requesting users had accessed which of said plurality of resources; and

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an access file has stored therein any access permissions of any users for access to the requested resource;

without opening the access file, checking the network memory to determine:

if:

the requested resource is altered; or

a representation of the requesting user has been removed from the network memory; or

any access permissions of the user for access to the requested resource are altered:

then removing from the network memory any access permissions of the user for access to the requested resource;

else, if:

the network memory indicates that the requesting user had previously accessed the requested resource:

then opening the requested resource to provide access to the requesting user.

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36. (Unchanged) The method of claim 35, the method further comprising, when the requesting user had not previously accessed the requested resource:

opening the access file;

checking the access file to determine if the requesting user may have access to the requested resource; and

if the check is affirmative, then providing said access.

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37. (Once Amended) A resource access system comprising:

a network, including a plurality of resources, for transmitting a resource request from a network user with access to the network for access to a requested resource of said plurality of resources; and

a network server, in communication with the network and a memory cache, for:

receiving the resource request;

checking the memory cache, without opening any of said plurality of resources, to determine whether:

the requested resource is altered; or

the network user is logically removed; or

any access permissions of the network user for access to the requested resource are altered;

if said checking is:

affirmative, then purging the memory cache of any access permissions of the network user for access to the requested resource;

negative, then determining if the network user's resource request had been previously granted and granting said access if the determining is affirmative.

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38. (Unchanged) The resource access system of claim 37, wherein granting said

access further comprises opening the requested resource for the network user to have said access to the requested resource.

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39. (Once Amended) A program for a resource access system, the program being embodied on a computer-readable medium and executed on a server that provides access to resources on a network, the program comprising:

a code segment to receive a resource request for access to one said resource from a user having access to the network;

a code segment to check a memory cache, without opening any of said resources on the network, to determine whether:

the requested resource is altered; or

the user is logically removed; or

any access permissions of the user for access to the requested resource are altered;

a code segment to purge the memory cache of any access permissions of the user for access to the requested resource if the check is affirmative;

a code segment to determine whether the user had previously been granted access to the requested resource; and

a code segment to grant said access if the check is negative and the determination is affirmative.

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40. (Unchanged) The program of claim 39 further comprising a code segment to

open the requested resource for the user of the network to have said access to the requested resource if the check is affirmative.

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41. (Once Amended) A method for controlling access to a requested resource on a computer network by a requesting user, the method comprising:

    checking a first memory, without opening the requested resource, to determine if the requesting user has previously accessed the network; and

    if the requesting user has previously accessed the network:

        providing the requesting user with access to the network;

    checking a second memory, without opening the requested resource, to determine:

    if:

        the requested resource is altered; or

        a representation of the requesting user has been removed from the second memory; or

        any access permissions of the user for access to the requested resource are altered:

            then removing from the second memory any access

            permissions of the requesting user for access to the requested resource;

    else, if the second memory indicates that the requesting user has

previously accessed the requested resource, then providing the requesting user with access to the requested resource;

else, if the requesting user has not previously accessed the requested resource then opening the requested resource to determine if the requesting user may access the requested resource and if the requested resource indicates that the requesting user may access the requested resource then providing the requesting user with access to the requested resource.

42. (Once Amended) A resource access determination method comprising:  
receiving a request for an access to a resource from a user having had said access; and  
deciding the request affirmatively based upon contents stored in a cache and without opening the resource or contacting the user, if:

the requested resource was unaltered; and  
the user was logically present; and  
any access privileges of the user for access to the requested resource were unaltered;  
else purging contents of the cache of any access privileges of the user for access to the requested resource.

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43. (Unchanged) The method as defined in Claim 42, further comprising, prior to

said receiving:

receiving a request for an access to the resource from the user who had not previously accessed the resource; and

obtaining any access privileges to the resource of the user without contacting the user.

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44. (Once Amended) A resource access determination method comprising:

receiving an initial request for an access to a resource from a user;

obtaining an access privilege of the user to the resource from a cache and without contacting the user; and

if:

the user had the access privilege to the resource; and

the initially requested resource was unaltered; and

the user was logically present; and

any access privileges of the user for access to the requested resource were unaltered;

then:

granting the initial request;

receiving subsequent requests for subsequent accesses to the resource from the user; and

granting each said subsequent request without opening the resource or contacting the user, but only if:

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the subsequently requested resource was unaltered; and  
the user was logically present; and  
any access privileges of the user for access to the requested  
resource were unaltered;

else purging the cache of any access privileges of  
the user for access to the requested resource;

else purging the cache of any access privileges of the user for access to the requested  
resource.

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45. (Unchanged) The method as defined in Claim 44, wherein:  
granting the initial request further comprises caching the result of said obtaining said  
access privilege of the user to the resource; and  
granting each said subsequent request further comprises comparing each said subsequent  
request with said cached result of said obtaining said access privilege of the user to the resource.

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46. (Once Amended) A resource access determination method comprising:  
receiving a request for an access to a resource from a user having had said access; and  
deciding the request affirmatively based upon contents stored in a cache, prior to  
contacting the user and without opening the resource, if:  
the requested resource was unaltered; and  
the user was logically present; and

any requirements for access by the user to the resource were unaltered;  
else purging contents of the cache of any requirements for access by the user to the  
resource.

47. (Once Amended) In a system where resources are protected by access checks  
that are performed to confirm that a user meets any requirements for access to a particular  
resource, and where an access check is performed the first time that the user requests access to  
the particular resource to confirm that the user meets any requirements for access to the particular  
resource, a method for determining whether the user should have access to the particular  
resource, the method comprising:

receiving a request from a user for access to a resource;  
checking the results of previous access request checks, which results are stored in  
a memory cache, to determine if the user has previously been allowed access to the  
resource;  
if:  
the user has previously been allowed access to the resource and  
the requested resource was unaltered; and  
the user was logically present; and  
any requirements for access by the user to the resource were unaltered;  
then allowing access to the resource without performing an access check;  
else purging contents stored in the memory cache of any requirements for

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access by the user to the resource.

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48. (Unchanged) The method as defined in Claim 47, wherein the results of previous access request checks are cached in a cache.

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49. (Once Amended) In a system where resources are protected by access checks that are performed to confirm that a user meets any requirements for access to a particular resource, where the requirements for each user to access each resource are stored in an access file, where an access check is performed the first time that the user requests access to the particular resource to confirm that the user meets any requirements for access to the particular resource, and where the access check that is performed the first time that the user requests access to the particular resource includes performing a file opening procedure upon the access file to determine the requirements for the user to access the particular resource, a method for determining whether the user should have access to the particular resource, the method comprising:

receiving a request from a user for access to a resource;  
checking the results of previous access request checks, which results are stored in a memory cache, without opening the access file, to determine if the user has previously been allowed access to the resource;  
if:  
the user has previously been allowed access to the resource and

the resource was unaltered; and  
the user was logically present; and  
any requirements for access by the user to the resource were unaltered;  
then allowing access to the resource without performing an access check;  
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else purging contents stored in the memory cache of any requirements for access  
by the user to the resource.

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